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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/369,386 08/06/99 TANEYA

M 914-101

EXAMINER

WM02/1010

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ARLINGTON VA 22201-4714

FIZIALI, J

ART UNIT

PAPER NUMBER

2673

DATE MAILED:

10/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/369,386

Applicant(s)

TANEYA ET AL.

Examiner

Jeff Piziali

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Newly submitted claim 11 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: a "method of driving an organic EL emission device so that an electrode pair region where at least no strong injection of carriers occurs is substantially always provided adjacent to an electrode pair region where holes and electrons are injected into the light emission layer by application of a forward voltage" is independent and distinct from "a method comprising driving the organic EL emission device in a manner such that the prescribed electric fields are substantially always different from each other in at least either strengths or directions."

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 11 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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3. Claims 1-10 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Kono et al. (6,191,764).

Regarding claim 1, Kono discloses an organic EL emission device [Fig. 1; 12] including first [Fig. 1; 19] and second [Fig. 1; 15] electrode layers, at least one of which is transparent; an organic light emission layer [Fig. 1; 18] for EL emission sandwiched between the first and second electrode layers for together supplying electric fields to the organic light emission layer, wherein at least the first electrode layer includes a plurality of electrodes arranged with spatial periodicity (see Column 3, Lines 11-31), and the plurality of electrodes included in the first electrode layer together with adjacent regions in the second electrode layer including at least one electrode form a plurality of electrode pair regions arranged with spatial periodicity, a method comprising driving the organic EL emission device in a manner such that the prescribed electric fields are substantially always different from each other in at least either strengths or directions as applied with variation in a time-dependent manner to electrode pair regions adjacent to each other among the plurality of electrode pair regions (see Fig. 4A; Column 6, Lines 40-44).

Regarding claim 2, Kono discloses the electric fields with at least different strengths or directions to be applied to electrode pair regions adjacent to each other among the plurality of electrode pair regions are varied with a constant time periodicity [Fig. 4A; P_G & P_R] (see Column 6, Lines 40-44).

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Regarding claim 3, Kono discloses alternating voltages [Fig. 4A; V_P & V_R] with opposite polarities are applied to electrode pair regions adjacent to each other among the plurality of electrode pair regions (see Column 6, Lines 40-44).

Regarding claim 4, Kono discloses at least the first electrode layer includes a plurality of electrodes in one of a dot-like form and a stripe-like form [Fig. 1; 19].

Regarding claim 5, Kono discloses the second electrode layer includes a plurality of stripe-like electrodes [Fig. 2; 37] positioned in parallel to the plurality of stripe-like electrodes included in the first electrode layer (see Column 4, Lines 22-44).

Regarding claim 6, Kono discloses the second electrode layer includes a plurality of stripe-like electrodes [Fig. 3; 37] arranged to intersect the plurality of stripe-like electrodes included in the first electrode layer (see Column 4, Lines 22-44).

Regarding claim 7, Kono discloses a first group of electrodes [Fig. 5; 19] including every other electrode are electrically connected to each other, and a second group of electrodes [Fig. 5; 19] that remain beside the first group of electrodes are electrically connected to each other in the first electrode layer (see Column 7, Lines 10-28).

Regarding claims 8 and 9, Kono discloses a first group of electrodes including every other electrode are electrically connected to each other, and a second group of electrodes that remain beside the first group of electrodes are electrically connected to each other in the second electrode layer (see Fig. 5; Column 7, Lines 10-28).

Regarding claim 10, Kono discloses an organic EL emission device [Fig. 1; 12] comprising first [Fig. 1; 19] and second [Fig. 1; 15] electrode layers, at least one of which is transparent; an organic light emission layer [Fig. 1; 18] for EL emission sandwiched between the first and second electrode layers, the first and second electrode layers for supplying prescribed electric fields to the organic light emission layer; and voltage application means [Fig. 5; 101] for applying a voltage between an electrode included in the first electrode layer and an electrode included in the second electrode layer (see Column 7, Lines 10-28), wherein at least the first electrode layer includes a plurality of electrodes arranged with spatial periodicity (see Column 3, Lines 11-58), the plurality of electrodes included in the first electrode layer together with adjacent regions in the second electrode layer including at least one electrode form a plurality of electrode pair regions arranged with spatial periodicity, and the voltage application means applies the prescribed electric fields in manner such that the prescribed electric fields are substantially always different from one another in at least either strengths or directions in adjacent electrode pair regions and vary in a time-dependent manner (see Fig. 4A; Column 6, Lines 40-44).

Regarding claim 12, Kono discloses an organic EL emission device [Fig. 1; 12] comprising first [Fig. 1; 19] and second [Fig. 1; 15] electrode layers, at least one of which is transparent; an organic light emission layer [Fig. 1; 18] for EL emission sandwiched between the first and second electrode layers for supplying prescribed electric fields to the organic light emission layer; at least the first electrode layer includes a plurality of electrodes arranged with spatial periodicity (see Column 3, Lines 11-58), the plurality of electrodes included in the first electrode layer together with adjacent regions in the second electrode layer including at least one electrode form a plurality of electrode pair regions arranged with spatial periodicity, a method comprising driving the organic EL emission device so that the prescribed electric fields different from each other in at least either strengths or directions are applied with variation in a time-dependent manner to electrode pair regions adjacent to each other among the plurality of electrode pair regions, so as to allow a half or less than a half of the total number of electrode pair regions to emit light at a time (see Fig. 4A; Column 6, Lines 40-44).

Response to Arguments

4. Applicants' arguments filed July 27, 2001 have been fully considered but they are not persuasive.

The applicants contend Kono fails to teach electrodes functioning together to supply an electric field across any light emission layer. The examiner respectfully disagrees. Kono discloses transparent electrodes [Fig. 1, 15 & 19] functioning together to supply an electric field across a light emission layer [Fig. 1, 18] (see Column 3, Lines 11-31).

The applicants also contend Kono fails to teach electric fields differing with regard to strength and/or direction in adjacent electrode pair regions. The examiner again respectfully disagrees. Kono discloses alternating bias voltages [Fig. 4, V_P & V_R] applied between the electrodes (see Column 6, Lines 40-44). Furthermore, it would seem to the examiner, that the direction of electric fields would inherently differ from one electrode pair region to the next. Under such reasoning, claims 1-10 and 12 are rejected.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (703) 305-8382. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 308-9051 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



J.P.

October 9, 2001



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600